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**RECOMMENDATION FOR CODE AND CRITERIA CHANGES REGARDING
ACCESS TO SHORELINE (TRAMS) AND SHORELINE MODIFICATIONS
Planning Commission October 12, 2010**

Introduction

Watershed Protection will provide a follow-up to the September 28, 2010 presentation of the proposed draft code amendments regarding shoreline access and shoreline modification. The follow-up will provide responses to comments from the previous presentation and provide additional opportunity for the community to comment. The draft amendments and proposed ECM section remain unchanged. The September 28, 2010 slide presentation, draft code amendments, ECM section are available at http://www.ci.austin.tx.us/watershed/bulkhead_new.htm

The following sections were provided for the September 28, 2010 backup summary:

Description:

Amend the City Code, Chapter 25-2, Subchapter C, Article 13 relating to docks, bulkheads and shoreline access, Chapter 25-5-2 relating to site plan exemptions and Chapter 25-8-92 relating to Critical Water Quality Zone boundaries. This Code amendment proposes to clarify regulations for shoreline access (i.e. trams or incline elevators) and modify shoreline protection requirements to include the prevention of vertical bulkheads, promotion of stable and environmentally-functional shorelines that provide wave abatement, and provide additional guidance to protect the integrity, water quality and safety of Lake Austin, Lady Bird Lake, and Lake Walter E. Long as requested by the Parks Board, Environmental Board and Planning Commission in 2009. Amendments to 25-5-2 (Site Plan Exemption) will clarify related site plan exemptions for maintenance. Amendments to 25-8-92 will provide clarification that the inundated areas of the lakes are part of the Critical Water Quality Zone. A new section of the ECM will be proposed to support the amended code.

Background:

There has been an increase in permitting requests for incline elevators (trams) as a means of providing access to the lake shore over cliffs or slopes. While traditional methods of access such as footpaths, stairs or sidewalks are addressed in the code, additional requirements are needed to regulate incline elevators and protect Critical Environmental Features.

Vertical bulkheads currently compose approximately one-half of the shoreline of Lake Austin and typically do not support the environmental, water quality and wave abating benefits that naturally sloped and vegetated shorelines provide. The First National Lakes Assessment by the EPA "shows that poor habitat condition along the shoreline is the most significant stressor in lakes" and that "local, state and national initiatives should center on protecting shoreline habitats." Current code language prohibiting "smooth, vertical bulkheads" has led to problematic interpretations. Attempts in 2005 to provide clarification has not resulted in a substantive change in the typical development practices. WPD Environmental Resource Management Division has provided a webpage summarizing the disadvantages of vertical bulkheads, benefits of sloped and vegetated shorelines, alternatives to vertical bulkheads, guidance resources and proposed draft code/criteria amendments. http://www.ci.austin.tx.us/watershed/bulkhead_shoreline.htm.

Summary of Proposed Changes to the LDC:

LDC 25-2 Article 13 (Boat Docks)

- Change Article 13 title to "Docks, Bulkheads and Shoreline Access"
- Replace "Town Lake" with "Lady Bird Lake" to reflect current name.
- Prohibit new boat ramps
- Prohibit storage of toxic or hazardous materials over water (fuel, herbicides, insecticides, etc)
- Include definitions for bulkhead and shoreline access (trams)
- Require site plan and building permit for shoreline access (trams)
- Require a licensed third-party inspection for trams (to meet State regulations)
- Construction of shoreline access must minimize disturbance to vegetation, preserve canopy, replace herbaceous ground cover and be screened from view with vegetation
- Shoreline stabilization to minimize wave action and wave return, demonstrate design guidelines and materials as specified in ECM (forthcoming), no bulkhead or revetment slopes greater than 45 degrees (unless in narrow man-made channels)
- Prohibit capturing or recapturing of land

LDC 25-8-92 (CWQZ)

- Clearly establish that inundated areas are part of the CWQZ

LDC 25-2-1066 (Screening Requirements)

- Trams must be screened from the view of property that is in an urban residence (SF-5) or more restrictive zoning district by providing vegetation and tree canopy as prescribed by rule.

LDC 25-5-2 (Site Plan Exemptions) and 25-5-3 (Small Projects)

- Site plan is not required for maintenance if structure was legally constructed, no variance is required, no board or commission approval required, no change to footprint, and no addition or replacement of piles unless the structure is compliant with current code
- Shoreline access exceeding 50ft and 35% gradient is not considered a small project

Historical Initiatives/Stakeholder Input

- February 1, 2005: Development community meets with the LCRA Lake Austin Advisory Panel (LAAP) to express concerns about the delay in bulkhead approvals by the City
- March 8, 2005: PARD presents City process and goals for shoreline development to LAAP
- August 22 and September 8, 2005: LAAP observes wave action on various shorelines
- October 16 & 20, 2005: LAAP and stakeholders provide bulkhead design recommendations to PARD
- December 2, 2005: City Public Works Department presents PARD with proposed draft criteria and standard details requiring rip-rap, rock gabions or other revetment design to be installed for wave attenuation.

Recent Initiatives/Boards and Commissions:

- Winter 2009: During routine hydrilla management field efforts, ERM Staff observes degraded biological community and lakebed scouring common at shorelines with vertical bulkheads
- Feb 19, 2009: Parks Board resolution to recommend amending the LDC to require review and permitting of trams (incline elevators/shoreline access)
- March 2009: ERM Staff estimates vertical bulkheads compose 42% of Lake Austin shoreline, observes a lack of compliance with recommended methods provided in 2005 by Public Works, and initiates literature review regarding shoreline development methods
- May 20, 2009: ERM presents findings to the Environmental Board
- July 15, 2009: Environmental Board recommends to the Planning Commission to initiate staff development of code and criteria changes as necessary to clarify shoreline protection requirements in conjunction with amendments related to trams
- Aug 25, 2009: Parks Board moved to support the Environmental Board resolution
- Oct 27, 2009: Planning Commission initiates staff development of code changes
- April/May 2010: ERM provides status presentations to Parks Board and Environmental Board
- June/July 2010: Environmental Board Subcommittee meetings for code amendments (with stakeholders)
- July 21, 2010: Environmental Board Motion to support draft code amendments
- Aug 24, 2010: Parks Board Motion to support draft code amendments
- September 17, 2010: Environmental Criteria Manual draft provided to stakeholders
- September 28, 2010: Planning Commission

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Backup Material Resource Links:

The following list presents an abbreviated list of resources on shoreline stabilization provided by federal, regional, state and municipal entities. Included resources include a literature review, handbooks for landowners, alternative method recommendations and technical guidance. A more thorough list of resources can be provided upon request. The *Shoreline Stabilization Handbook* provides a thorough comparison of different methods and issues related to the topic.

Shoreline Stabilization Handbook for Lake Champlain & Other Inland Lakes

(Northwest Regional Planning Commission and NOAA)

<http://nsgd.gso.uri.edu/lcsg/lcshg04001.pdf>

First National Lakes Assessment Released (EPA)

<http://www.epa.gov/owow/info/NewsNotes/pdf/89issue.pdf>

The Construction, Aesthetics, and Effects of Lakeshore Development: A Literature Review

(Wisconsin Department of Natural Resources)

http://dnr.wi.gov/org/es/science/publications/PUBL_SS_577_99.pdf

Green Shorelines Report (City of Seattle)

http://www.cityofseattle.net/dpd/static/Green_Shorelines_Final_LatestReleased_DPDS015777.pdf

Shore Erosion Control, the Natural Approach (NRCS, NOAA, Maryland DNR)

ftp://ftp-fc.sc.egov.usda.gov/MD/web_documents/programs/red/shore_esred.pdf

Streambank and Shoreline Stabilization Guidance (Georgia DNR)

http://www.gaepd.org/Files_PDF/techguide/wpb/Streambank_and_Shoreline_Stabilization_Guidance.pdf

Understanding, Living With, and Controlling Shoreline Erosion: A Guidebook for Shoreline Property Owners (Tip of the Mitt Watershed Council)

<http://www.watershedcouncil.org/resources%20and%20publications/files/Shoreline%20Erosion%203rd%20Edition.pdf>

Erosion Control: Non-Structural Alternatives. A Shorefront Property Owner's Guide

(North Carolina Coastal Federation)

www.nccoast.org/newsroom/images-pdfs/guides/ErosionBro.pdf

Engineering Field Handbook: Chapter 16 – Streambank and Shoreline Protection

(USDA Natural Resource Conservation Service)

<ftp://ftp-nhq.sc.egov.usda.gov/NHQ/pub/outgoing/jbernard/CED-Directives/efh/EFH-Ch16.pdf>

Staff Request:

Staff requests the Planning Commission review and make recommendations for the proposed code amendments with anticipation of an October 28, 2010 City Council date. Staff also requests for support that the new section to the Environmental Criteria Manual be adopted through the Emergency Rules process with the formal stakeholder process to be completed through the 2nd quarter rules process.

City Staff:

Shoreline access (trams): Pat Murphy (974-2821)

Shoreline modifications (bulkheads): Andrew Clamann (974-2694)

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ORDINANCE NO. _____

AN ORDINANCE AMENDING CITY CODE CHAPTER 25-2, SUBCHAPTER C, ARTICLE 13 RELATING TO DOCKS, BULKHEADS, AND SHORELINE ACCESS; AMENDING SECTION 25-2-1006 RELATING TO SCREENING; AMENDING SECTION 25-5-2 RELATING TO SITE PLAN EXEMPTIONS; AMENDED SECTION 25-5-3 RELATING TO SMALL PROJECTS; AND AMENDING SECTION 25-8-92 RELATING TO CRITICAL WATER QUALITY ZONE BOUNDARIES.

BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF AUSTIN:

PART 1. City Code Chapter 25-2, Subchapter C, Article 13 (*Boat Docks*) is amended to replace all references to Town Lake with Lady Bird Lake.

PART 2. City Code Chapter 25-2, Subchapter C, Article 13 (*Boat Docks*) is amended to change the title as follows:

ARTICLE 13. [BOAT] DOCKS, BULKHEADS, AND SHORELINE ACCESS.

PART 3. Section 25-2-1171 (*Applicability*) of the City Code is amended to read:

§ 25-2-1171 APPLICABILITY.

(A) This article applies to a structure or development:

- (1) in Lake Austin, Lady Bird [~~Town~~] Lake, or Lake Walter E. Long;
- (2) along the shore of Lake Austin in the area below 504.9 feet above mean sea level;
- (3) along the shore of Lady Bird [~~Town~~] Lake below 435 feet above mean sea level; ~~[or]~~
- (4) along the shore of Lake Walter E. Long; or ~~[:]~~
- (5) used for access to areas described in this Subsection.

(B) The building official, director of the Planning and Development Review Department, and ~~[the]~~ director of the Parks and Recreation Department shall implement and enforce this article.

PART 4. Section 25-2-1172 (*Definitions*) of the City Code is amended to read:

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In this article:

- (1) BULKHEAD means a revetment or wall constructed for the purpose of stabilizing or modifying the shoreline.
- (2) CONSTRUCT includes placing or replacing a structure and structurally altering an existing structure.
- (3)[(2)] DOCK includes a wharf, pier, float, floating dock, island, boat dock or other similar structure.
- (4)[(3)] NORMAL POOL ELEVATION means:
 - (a) for Lake Austin, 492.8 feet above mean sea level;
 - (b) for Lady Bird [Town] Lake, 429 feet above mean sea level; and
 - (c) for Lake Walter E. Long, 554.5 feet above mean sea level.
- (5)[(4)] RESIDENTIAL DOCK means a dock that provides a stationary landing for:
 - (a) fishing or swimming; or
 - (b) anchoring, mooring, or storing not more than one vessel.
- (6)[(5)] SHORELINE means the line where the edge of the water meets the land at normal pool elevation.
- (7) SHORELINE ACCESS means improvements constructed to provide a means of approaching the shoreline such as stairs, lifts, trams, incline elevators or escalators.

PART 5. Section 25-2-1173 (*Permit Required for Dock Construction*) of the City Code is amended to read:

§ 25-2-1173 PERMIT REQUIRED FOR [DOCK] CONSTRUCTION.

- (A) A person may not modify a shoreline or construct a dock, bulkhead, or shoreline access unless the person first obtains a site plan and building permit, as applicable, and pays the applicable [a] permit fee set by ordinance.

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- (B) The building official or the director of the Parks and Recreation Department shall require the applicant to [may] place an identification or registration tag on a dock. A person may not remove a tag placed under this subsection.
 - (C) A permit obtained under this section shall be prominently displayed at the construction site until the final inspection and approval by the building official.
 - (D) The director of the Planning and Development Review Department [~~building official~~] may not approve an application for a permit for the construction of more than two residential docks or other similar structures on a single lot zoned MF-1 or more restrictive, unless:
 - (1) the lot was platted and recorded before August 26, 1976, and perpetual rights to use the water frontage of the lot were granted or conveyed to one or more owners of other lots in the subdivision before June 23, 1979; or
 - (2) the Parks and Recreation Board has approved a site plan that clusters the residential [~~boat~~] docks on one or more lots in the subdivision.
 - (E) If a permit is required under this section and is not obtained before construction begins, the required fee is increased by an amount established by ordinance. Payment of the additional fee does not relieve a person from complying with this Code.
 - (F) Where an inspection is required by state law, neither a Certificate of Compliance nor a final inspection may be issued for shoreline access unless the applicant has submitted an inspection report, signed by a QEI-1 inspector registered with the Texas Department of Licensing and Regulation, stating that all applicable state regulations have been met.

PART 6. Section 25-2-1174 (C) (*Structural Requirements*) of the City Code is amended to read:

- (C) A retaining wall, bulkhead, or other erosion protection device must be constructed to minimize wave return and wave action by using design and materials prescribed by rule [~~of stacked stone, natural rock rip rap, concrete, steel pilings or wallings, or aluminum~~]. A bulkhead with a greater than 45 degree vertical slope for any portion greater than one foot in height [~~smooth vertical surface~~] is not permitted on or adjacent to the shoreline [~~main body~~] of a lake listed in section 25-2-1171 (Applicability) unless the shoreline is located within an existing man-made channel less than 50 feet in width. [~~The surface of a wall or bulkhead constructed on the main body of a lake~~]

~~must be designed to minimize wave return and reduce wave action.]~~

Capturing or recapturing of land is not permitted on a lake listed in section 25-2-1171 (Applicability).

PART 7. Section 25-2-1176 (*Regulations*) of the City Code is amended by amending Subsections (A) and (F) and adding a new Subsection (I) to read:

- (A) A site plan must comply with this section. A city official may not approve for final inspection a structure that does not conform to the requirements of Title 25 of the City Code, including this section.
- (F) The number of [~~boat~~] residential docks may not exceed:
 - (1) twice the number of lots in the subdivision that have lake frontage on Lake Austin or Town Lake; or
 - (2) the number of lots in the subdivision, if:
 - (a) the subdivision has a common area that fronts on Lake Austin or Town Lake; and
 - (b) a perpetual right to use the water frontage of the common area has been conveyed to a lot owner in the subdivision.
- (I) Construction of a boat ramp is prohibited.

PART 8. Section 25-2-1179 (*Environmental Protection*) of the City Code is amended to add new Subsections (C) and (D) to read:

- (C) Containers of hazardous materials, fuel, oil, herbicides, insecticides, fertilizers or other pollutants may not be stored on docks extending into or above Lake Austin, Lady Bird Lake, or Lake Walter E. Long.
- (D) Construction of shoreline access structures must minimize disturbance to woody and herbaceous vegetation, preserve the tree canopy, and replace herbaceous ground cover to the extent practicable.

PART 9. Section 25-2-1066 (*Screening Requirements*) of the City Code is amended to add a new Subsection (B) and redesignate the remaining Subsections accordingly.

- (B) A person constructing shoreline access, as that term is defined in section 25-2-1172 (*Definitions*), shall screen the shoreline access from the view of property that is in an urban residence (SF-5) or more restrictive zoning district. A person may comply with this Subsection by providing vegetation

and tree canopy as prescribed by rule. The owner must maintain the screening provided under this section.

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PART 10. Section 25-5-2 (*Site Plan Exemptions*) of the City Code is amended to add new Subsections (K) and (L) to read:

- (K) The exemptions provided by this section do not apply to the construction of a dock, bulkhead, or shoreline access as described in Chapter 25-2, Article 13.
- (L) A site plan is not required for maintenance of a dock, bulkhead, or shoreline access under the following conditions:
 - (1) the existing dock, bulkhead, or shoreline access was legally constructed; provided that simple re-decking will be allowed for all docks;
 - (2) no variance from City Code is required;
 - (3) no city board or commission approval is required;
 - (4) there will be no change in the existing footprint of the dock, bulkhead, or shoreline access; and
 - (5) there will be no removal, addition, or replacement of existing or new piles, pilings, or sheet pile, unless the dock, bulkhead, or shoreline access complies with the requirements of Title 25 of the City Code.

PART 11. Section 25-5-3 (*Small Projects*) of the City Code is amended to add a new Subsection (C) and redesignate the remaining Subsection accordingly:

- (C) Notwithstanding any other provisions in this Section, construction of Shoreline Access, as defined in Section 25-2-1172, that exceeds 50 feet in length and is constructed on slopes exceeding 35% gradient does not constitute a small project.

PART 12. Section 25-8-92 (*Critical Water Quality Zones Established*) of the City Code is amended to add a new Subsection (B) and to redesignate the remaining Subsections accordingly:

- (B) Critical water quality zones are established to include the inundated areas that constitute Lake Walter E. Long, Lake Austin, Lady Bird Lake, and the Colorado River downstream of Lady Bird Lake.

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PART 13. This ordinance takes effect on _____, 2010.

PASSED AND APPROVED

_____, 2010

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Lee Leffingwell
Mayor

APPROVED:

Karen Kennard
Acting City Attorney

ATTEST:

Shirley A. Gentry
City Clerk